NHS
University Hospitals Sussex
NHS Foundation Trust

Job description and person specification

Excellent
Care
Everywhere

We are compassionate
We are inclusive
We are respectful

Job description

Job Title	Senior Radiographer - Eastbourne
Band	5
Hours	37.5
Department	Radiotherapy
Division	Cancer Services Directorate
Location / Hospital Site	Brighton
Responsible to	Head of Radiotherapy
Accountable to	Head of Radiotherapy
DBS Level	Enhanced DBS check
DBS Barring	Adults Barred List
DBS Workforce	Adult

Role summary

The post holder provides professional radiotherapy at Eastbourne Radiotherapy Unit, covering the planning, simulating, calculating and treatment of cancer patients as well as liaising effectively with the multidisciplinary team.
Once experienced the post holder will have the responsibility for the daily running of the Linear Accelerator through set competency training.
The post holder requires advanced clinical knowledge of radiotherapy procedures, tissue tolerances, and physiological reactions due to radiation exposure.
The post holder practises in accordance with current legislation governing the use of ionising radiation IR(ME)R. High level of competence is required in the use of a wide range of highly complex technical and computerised systems, including: -

- Linear accelerators for the delivery of radiation treatment,
- Computerised patient information and appointment management system
- Image matching programmes for verification and evaluation procedures
- during treatment QA equipment for daily tolerance checks
- Equipment for the delivery of high dose radiation: dual energy, dual modality
- Linear Accelerators
- Computerised Tomography (CT) scanners.
- Computerised treatment planning systems
- QA equipment for daily tolerance checks

Key working relationships

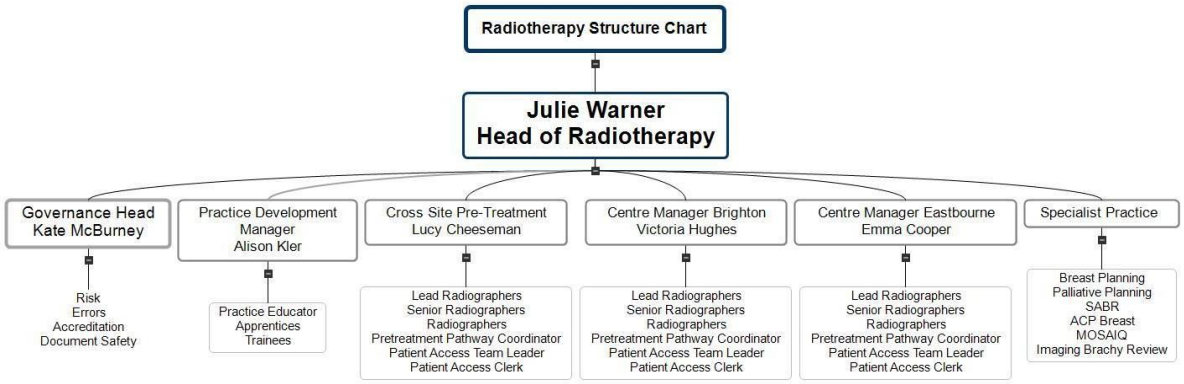
The post holder's key relationships will be with:

Internal:

Head of Radiotherapy
Other service delivery leads; Clinical Director, Clinical Directorate Manager, Head of Physics, Planning staff, Radiotherapy staff, Imaging staff, Physics staff, other staff across the Trust, Clinical Oncologists, Radiologists.

External:
External specialists within the Surrey Sussex Alliance, Eastbourne and Western Sussex Trusts
External National and International networks

Structure chart



Main duties and responsibilities

The post holder will expand their knowledge and experience to take responsibility for the management and co-ordination of own workload on a treatment unit, including patients and staff

The post holder will expand their knowledge and experience to take responsibility for the completion of pre-treatment checks of plans prior to first treatment checking prescriptions, calculations, consent and consultant approval. Ensure that treatment documentation and data entry is accurate

Responsible for co-ordination of individual treatment plans between physics planning, CT and treatment machines, ensuring time targets are met

Be responsible for taking the lead for all treatment set ups within the treatment room, seeking advice only when beyond their competence

Reorganising workload when there is a machine breakdown**.**

Write up treatment plans and enter computerised treatment delivery systems**.**
To work autonomously according to protocol and achieved competencies in undertaking organisational tasks.

Responsible for the accuracy of records for the care, treatment, advice and tests undertaken for individual patients.

Analyse and update information systems necessary for the safe treatment of patients during their treatment.

Undertake and calculate small changes to treatment protocols where necessary.

Undertake quality assurance procedures and report when out of tolerance.

Liaise with other departments concerning patients' treatment and appointments.

Arrange follow-up appointments for patients.

Update information systems and send letter to patients GP and referring consultants advising completion of treatment and giving clinical details for their own records.

Arranging for the transport of in-patients to and from the ward and treatment units.

Participating in the late shift rota being responsible for the security of the department by locking up and arranging patients' transfer home via hospital transport.

Fully participate in weekend on-call system

Organising for interpreter to be present for patients who are unable to communicate in English or talk.

Organising for patients to be seen by the dietician, Macmillan team, speech therapist, physiotherapist, lymphoedema nurse, appliance officer and social worker

Always ensuring patient confidentiality.

Summarising patient treatment sheets on Management System. Checking accuracy of dosage and fractionation given, against verification system. Inputting information of patients for accurate statistics to be collected to ensure the department is meeting the cancer waiting times.

Communication

- Ensure good communication with all patients and their relatives or carers taking account of their ability to understand, with sensitivity and expert knowledge of their cancer and breaking down of any other barriers which seem to hinder the communication. During and after treatment the patients are verbally and through information leaflets given sufficient expert information for their treatment and social needs.
- Confirm all identification, pregnancy checks and consent for treatment following IRMER, local radiation rules and work instructions
- Counsel anxious and often distraught patients and relatives, referring them to counselling services where necessary
- Give unwelcome news to patients regarding their treatment and ensure there is clear understanding and support as required

- Respect and maintain clients right to confidentiality according to the Data Protection Act 1998 and Trust policy
- Communicate clearly, timely and effectively in a professional manner with all staff, clinical and non-clinical, regarding patient disease, treatment and care and IT responsibility
- Responsible for creating and maintaining a professional yet friendly working relationship with all staff members working in radiotherapy and the Sussex Cancer Centre, hospital and outside supplier, information seekers etc.
- Receive and communicate complex and sensitive information regarding patient treatment and condition
- Receive and communicate information in a manner which is required and understood by others
- The postholder will be asked to present information as a presentation at meetings

Professional - staff should remember they have a duty to comply with the following:

- Health Professions Council directives and guidelines
- Maintain professional competencies across a wide range of skills and knowledge
- Contribute to the clinical governance agenda within radiotherapy
- IR(ME)R 2000 and the Ionising Radiation Regulations (1999)
- Radiotherapy Local Rules for radiation
- Comply with UHSx Hospital Manual Handling policy
- Comply with UHSx Trust Health and Safety policy
- Comply with the UHSx with Equality and Diversity policies
- To promote a safe clinical environment for all patients, visitors and staff.
- To maintain the patients respect, dignity and privacy and to act with kindness and courtesy to all members of the public
- To maintain accurate records of care, treatment and observations

Service delivery and improvement

- Develop and implement plans, processes and internal policies to ensure that the Trust conforms to the requirements of relevant legislation.
- Responsible for interpreting, proposing and drafting changes to policies, guidelines and service level agreements (SLA's) which impact the service.
- Proposes changes to own function making recommendations for other service delivery.
- Maintain a good knowledge of emerging policies from government departments and external bodies which may impact the service.
- Contribute to strategic and contingency planning for the service, which may have an impact on other areas.

People management and development

- Responsible for carrying out duties in line with the Trust's e-rostering processes, including managing rosters, supporting staff allocation, and contributing to effective budget reconciliation and workforce planning

Patient care delivery

Planning and simulating patients in preparation for radiotherapy treatment.

- Planning using CT images:
- Determining patient position for CT scans and radiotherapy treatment. Identifying CT scanning levels dependant on diagnosis.
- Assist in the planning of radiotherapy treatment using CT images and computerised planning systems to ensure optimal radiation dose distribution.
- CT patient treatment checking all planned parameters to ensure accuracy of treatment.
- Ensure that the correct ma / kV (radiation exposure) is selected to minimise the dose to the patient when performing scans and to record the radiation dose received by the patient accurately.
- Working independently and concurrently with the Doctors when using Virtual Simulation to create a patient's plan

Generate and calculate treatment plans prior to radiotherapy treatment.

- Scrutinise and interpret the radiation prescription in accordance with department protocols so radiotherapy treatment is delivered accurately and reproducibly.
- Generate a treatment plan and verify treatment parameters ensuring optimal radiation dose delivery
- Undertake complex manual and computerised calculations involving a range of radiation types and energies following strict protocols which, by law, adhere to ionising radiation IR(ME)R regulations. Recognise clinical tolerances and calculate dose to tissue (e.g. spinal cord, optic lens) and accurately input doses into the verification system to ensure tissues tolerances are not exceeded
- Independently second check calculations done by others, as stated by IR(ME)R national regulations for radiation protection
- Independently second check tolerances and tissue dose
- Refer highly complex calculations to physicist for double checking and signing off
- Write up treatment plans precisely and accurately
- Independently second check treatment plans

Prepare customised immobilisation devises for use during treatment.

- Construct customised patient immobilisation devices, bolus and wax according to protocol.
- Alter and re-fit immobilisation devices to ensure accurate radiotherapy treatment delivery.

- Check isocentre points, entry points, collimator twist and all treatment borders on immobilisation devices and ensure everything is correctly labelled.

Quality Assurance (QA).

- Be competent to carry out daily checks on all equipment for clinical use - CT, linear accelerators, electronic image matching system
- Daily checks identify and measure treatment machine parameters (within 2mm). If out of tolerance can withdraw machine from clinical use.
- Comply with departmental and national safety regulations and notify radiotherapy senior lead and engineering support of any non-compliance. Accept equipment for clinical use after any correction or alteration is made.
- Weekly audit on treatment documents to ensure that every treatment has been given and accurately recorded. Recognise any discrepancies and take appropriate action to ensure all phases of treatment are carried out correctly.
- To follow departmental protocols and IR(ME)R regulations and report any errors or near misses.

Treatment delivery.

- Deliver and supervise radiotherapy treatment to patients guided by standard protocols planned, CT'd and calculated in advance.
- Monitor patients closely during delivery of radiotherapy treatment
- Able to make clinical decisions when limited information is available, e.g. to abate radiotherapy treatment pending further advice or testing.
- Use own judgement and initiative to determine treatment set-up in cases where small changes have occurred since planning (i.e. small change in patient shape).
- Re-image, re-calculate and apply compensation following small changes
- Autonomously provide patients with expert advice and guidance on treatment related side effects including the use of medication.
- To ensure all patients have a personal care plan, considering all holistic and best practice considerations. Therefore, ensuring that each patient, with a life-threatening condition, is treated in accordance with their needs.
- Contribute to the clinical governance agenda within radiotherapy
- Ensure all patients, self and others abide by local rules radiation regulations to maintain a safe environment
- Ensure all documentation of Radiotherapy treatment and patients' clinical details are documented accurately.
- Prepare images for matching by outlining specific anatomical structures on the computerised Portal Imager, using skills and knowledge to maintain a very small tolerance.
- Re-image, re-calculate and apply dose compensation resulting from these changes.

- Record all radiation dose received by the patient according to IR(ME)R regulations.
- Confirming patients set up and correct treatment field position. Checking all treatment parameters in the computerised verification system before treatment can be accurately delivered.
- Know and understand when it is necessary to deviate from planned treatment parameters.
- Override treatment machine tolerances when necessary.

Treatment Verification.

- Use I-view and a detailed knowledge of anatomy and its interaction with radiation to produce digital images of the treatment area.
- Electronically manipulate treatment images to compare them to planned images, with a 3mm tolerance to make clinical decisions about the accuracy of the patient's treatment. This may result in continuing treatment, treatment being stopped or treatment being replanned.

Clinical Responsibilities.

- Use electronic imager to confirm patient positioning at start of radiotherapy course and during treatment as part of QA protocol.
- Calculate accuracy of patient position and use clinical judgement to adjust positioning, considering contour of patients, progression and regression of tumour.
- In case of discrepancies and inability to treat patient refer for changes in calculation or refer to CT/planning for re-planning.
- To ensure that prior to each treatment, provide expert assessment to whether each patient is fit for treatment, and take appropriate action if unfit for treatment by referral to a clinician.
- Making judgements when speciality support is required by other disciplines due to the nature of the patients' problems and referral on to dieticians and Macmillan team
- Arrange for blood / urine sampling and analyse results before treatment, Responsible for continuing or suspending patient's treatment, depending on result. Inform patient of highly sensitive result and refer to clinician if treatment is suspended
- Permanent skin mark patients to ensure accurate and reproducible daily treatment set-up
- Use spatial awareness, visual precision and manual dexterity in the precise and safe manipulation of both patient and equipment for optimal daily set-up. The result is an accurate irretrievable radiation beam set within three millimetres tolerance which ensures that consequently no vital structure is treated.

- Physically move patients and manipulate heavy and very expensive ancillary equipment e.g. electron applicators, immobilisation boards. This equipment can only be moved manually since it needs to be positioned precisely and in close contact to the patient.
- Move highly sophisticated and expensive equipment around patient and treatment couch with due care and attention
- Use hoists and lifting equipment where able and in line with manual handling directives.
- Minimise physical injury to self and others and minimise exposure to unpleasant and dangerous conditions e.g. from patients' body fluids and needle-stick injury (MRSA, Hepatitis B, HIV) and ensure cleanliness to avoid in the spread of infection
- Use Mangar chair, trolleys, Stretchair and Stand Aid to safely move patients.
- Accurately position and treat with ionising radiation in order of 40 patients' every day.

Dosimetry.

- On rotation through Dosimetry:
- Produce 3D conformal treatment plans for external beam radiotherapy to individual patients using highly complex computerised treatment planning systems and carry out associated dosimetry calculations in accordance with clinical prescription and agreed procedures:
- Check that all patient images and other information required to produce treatment plans is available and acceptable for planning.
- Prepare CT data, manipulating the images as necessary.
- Analyse requirements and make the necessary judgements regarding treatment parameters and patient dose effects to produce the required dose distribution over the treatment volume.
- Ensure plans are achievable with the departmental treatment machines.
- Ensure compliance of treatment plans with internal treatment protocols and national guidelines
- Replan patient treatments where required following changes to the treatment regime.

Learning and development

- Attend mandatory training updates as required.
- Undertake training as necessary in line with the development of the post and as agreed with the line manager as part of the personal development process.
- Achieve and demonstrate agreed standards of personal and professional development within agreed timescales.
- Identify own learning needs and jointly plan training requirements with your line manager
- Participate in the Trust's appraisal process to discuss how your role will help deliver the best possible care to our patients and help to deliver any changes in service.

This job description is an outline of the role and responsibilities. From time to time due to the needs of the service, we may ask you to flexibly undertake other duties that are consistent with your role and banding, including project work, internal job rotation and absence cover.

The job description and person specification may be reviewed on an ongoing basis in accordance with the changing needs of the department and the organisation.

Vision and values

Our vision is to deliver **Excellent Care Everywhere**.

All our efforts to do this are underpinned by our values:

- We are **compassionate**: we communicate and act kindly
- We are **inclusive**: our teams work collaboratively
- We are **respectful**: we behave professionally

Our vision and values are extremely important to us and we expect everyone who works at University Hospitals Sussex in any capacity to share and uphold them.

Our strategic ambitions

We have five important ambitions that will help us deliver Excellent Care Everywhere. These are:

1. Providing **excellent care for our patients** – fast, fair, high-quality care
2. Providing **excellent care for our people** – supporting all our colleagues to be their best
3. Providing **excellent care for our communities** – helping local people live well and thrive
4. Providing **excellent care for our future** – being ready for the word ahead.
5. Providing **excellent care together** – becoming one UHSussex, united for success

Safeguarding children and vulnerable adults

UHSussex is committed to safeguarding and promoting the welfare of children and adults and to protecting them from the risks of harm. The Trust recognises its responsibility to ensure that safe working conditions and systems are in place for staff working with children, looked after children, adults, and families in their care. Staff are required to comply with Trust policies on Safeguarding and to undertake the appropriate level of mandatory in-service training in this area.

Equality, diversity and inclusion

Inclusion and respect are core values at UHSussex, and we are committed to diversity and equality. This means treating colleagues and patients with professionalism, ensuring everyone feels welcome and included, valuing different backgrounds and experiences, and challenging inequalities.

Having all our staff feel safe, supported, included and valued will lead to better care and outcomes for our patients – helping us deliver Excellent Care Everywhere.

All staff have a duty to report any behaviours which contravene this to their managers.

Workplace and environmental factors

Physical	• Manipulation of objects, people with narrow margins for error. • Highly developed physical skills where accuracy is important. • Manipulation of fine tools, materials/high degree of precision. Manipulation of highly complex and expensive equipment with minimal margins for potential error • Frequent moderate effort for short periods positioning, manoeuvring patients, equipment into position for treatments and examinations • Must be able to move between all the Trust sites and other organisations. • Keyboard skills.
Emotional	• Giving unwelcome news related to staff matters. • Dealing with difficult situations/ circumstances. • Dealing with people with challenging behaviour. • Dealing with distressing cases discussed within the multi-disciplinary meetings. • Frequent distressing or emotional circumstances e.g. Working with patients with cancer or terminal illness
Mental	• Desire to pursue additional education, training and development • Able to demonstrate the interpersonal skills required for this role, including tolerance, sensitivity and empathy with patients and colleagues • Demonstrates drive and resilience

	• Self-starter, able to overcome challenges and complete work on time • Team player, with ability to understand and work with all staff. • Concentrate on paperwork and cope with unexpected interruptions. • Work under pressure, problem solve and escalate as and when appropriate.
Working Conditions	• Will be required to travel to work/meetings across several locations • Embrace the development within the profession and be willing to participate in this. • Work weekends and shifts • Occasional unpleasant working conditions

Person specification

Requirements	**Level required** **Essential**	**How assessed** Application form (AF) Selection interview (I) Assessment (A)	**Level required** **Desirable**	**How assessed** Application form (AF) Selection interview (I) Assessment (A)
Professional Registration	HCPC Registration	AF		
Experience/ Qualifications	DCR [T] or BSc [Hons] in Therapeutic Radiography Must have a extensive experience and have evidence of CPD	AF/ I AF/ I	Relevant short specialist courses in Radiotherapy	AF
Skills	Evidence of having undertaken own development to improve understanding of equalities issues Able to utilise the knowledge of biology, physics and mathematics at degree level into the process that are applicable to Radiotherapy patients in their cancer pathway Able to prioritise workload Caring	(I) AF AF		

	Excellent verbal and written skills	I		
	To be able to effectively interface with all clinical personnel in the patient's pathway to provide a comprehensive service for cancer patients	AF/ I		
	IT literacy, including word processing, E mail and use of Internet to research evidence bases for Radiotherapy research	AF		
	Able to manipulate and operate very large, expensive and complex Linear Accelerators to pinpoint accuracy on patient radiotherapy treatment targets of less than 1 mm	AF/ I		
	Able to work within a constantly changing 3-dimensional environment	I		
	Able to assist in the care of terminally ill and immobile patients within the Radiotherapy environment	I		
	Able to work in stressful environments, where workload priorities are constantly changing and patient requirements must be immediately addressed	I		
	Able to concentrate for prolonged periods of time for the calculation of treatment time and the assessment of treatment data	I		
	Able to work and take responsibility for work in an	AF/ I		

	environment that requires precise, very fast and very accurate work, which is repetitive but each action for each patient being different. Able to cope with a workload of distressed cancer patients and relatives; terminally ill patients and patients who have co – morbidity Ability to cope with using VDU equipment for a large percentage of the day Able to work in an environment that has a constant background noise level that is contra-indication to prolonged periods of concentration	AF/ I AF/ I AF/ I		
Specific Requirements			To assist Radiotherapy Manager in the monitoring and evaluation of current and future medicines usage and expenditure	AF
Freedom to Act				